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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/789,766	02/27/2004	Pallavur Sankaranaraynan	2454	1895

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EXAMINER	
ALIA, CURTIS A	
ART UNIT	**PAPER NUMBER**
2616	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/789,766	SANKARANARAYNAN ET AL.	
	Examiner	Art Unit	
	Curtis Alia	2609	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 February 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *27 February 2004* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *27 September 2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. Figures 1-3 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

For claim 2, a method of a system is claimed. However, claim 2 depends from a claim that, as worded, claims both a system and the method of the system. Therefore, claim 2 is vague and indefinite for further limiting only the improvement of the system. It is suggested to change "the method of claim 1" to --- the system of claim 1 ---. Similar problems exist for claims 3-11.

Note: Another suggestion is to change the wording of claim 1. Although claim 1 is neither being objected to nor rejected under the basis of U.S.C. 112, second paragraph, it would overcome the rejections for claims 13-20. The option would be to claim "a method of an

enterprise network comprising:" with the preamble and the limitations included as elements of the system.

For claim 13, an improvement of a system is claimed. However, claim 13 depends from a claim that, as worded, claims both a system and the improvement of the system. Therefore, claim 13 is vague and indefinite for further limiting only the improvement of the system. It is suggested to change "the improvement of claim 12" to --- the system of claim 12 ---. Similar problems exist for claims 14-20.

Note: Another suggestion is to change the wording of claim 12. Although claim 12 is neither being objected to nor rejected under the basis of U.S.C. 112, second paragraph, it would overcome the rejections for claims 13-20. The option would be to claim "an improvement of an enterprise network comprising:" with the preamble and the limitations included as elements of the system.

Claim Rejections - 35 USC § 103

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-8, 12-13, 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schmidt et al. (US 2002/0151302) in view of Stamp et al. ("IP Centrex Creates New Opportunities for Equipment Manufacturers," 2001).

For claims 1, 2, 4 and 5, Schmidt discloses a method on a system comprising an enterprise network that provides connectivity between a plurality of enterprise telephone stations (see figure 1, primary service gateway 102-1 and CPEs 1-n) wherein a landline connection extends between the enterprise network and a packet-switched network (see figure 1, broadband connection 106), the method comprising detecting failure on the landline connection (see paragraph 15, lines 1-4) in response to detecting the failure of the landline connection, invoking a wireless wide area network connection between the enterprise network and the packet-switched network to allow continued passage of the packet-based signaling between the enterprise network and the call server (see paragraph 5, lines 1-6), wherein the WWAN connection

comprises a cellular radiocommunication system (see paragraph 18, lines 1-8), wherein the enterprise network includes a router that routes the packet-based signaling to the packet-switched network, and wherein detecting the failure comprises the router detecting the failure (see figure 1, primary service gateway 102-1 and monitor 103), wherein the enterprise network includes a router that has a first mode in which the router routes traffic over the landline connection (see paragraph 4, lines 4-7) and a second mode in which the router routes traffic over the WWAN connection (see paragraph 5, lines 1-6), wherein invoking the WWAN connection comprises the router switching from the first mode to the second mode (see figure 3, 304-308).

For claims 1 and 7, Schmidt teaches all of the limitations with the exception that a call server sits on the packet switched network and engages in packet-based signaling with the enterprise network to set up calls inside the enterprise network between the enterprise telephone stations and the call server comprises an IP Centrex server. Stamp, from the same field of endeavor, teaches the provision of using an IP-based Centrex server as a centralized call server on a packet-based network accessible by the customer premises (see paragraph 1, lines 15-17 and figure, connection between Network Gateway E and Router via broadband connection to managed IP or ATM network). Thus, it would have been obvious to a person having ordinary skill in the art at the time of the invention to employ a central exchange service capable of setting up calls between customer premise equipment and also to calls outside the network. This combination is possible by using IP telephones or analog telephones connected to a VoIP gateway in the enterprise network so as to format the data as needed by a central office switch in the Centrex server. The motivation for combining these features is that a Centrex server is much

more cost effective and easier to maintain for a business/customer with a small quantity of equipment (see paragraph 2).

For claim 3, Schmidt and Stamp teach all of the limitations with the exception that invoking the WWAN connection comprises using a WWAN modem to acquire connectivity with the packet-switched network. However, a modem used to modulate and demodulate carrier signals to and from the wireless interface is an inherent and required component in a WWAN connection. The signal must be modulated with a carrier frequency to become strong enough to reach the receiver at the packet-based network, and vice versa.

For claim 6, Schmidt and Stamp teach all of the limitations with the exception that the router is coupled with a WWAN modem, and wherein invoking the WWAN connection comprises the router sending data to the WWAN modem. However, this is inherent, as stated for claim 3 above, because the router must pass the data to the modem to modulate the signal to be transmitted over the air to the packet-based network.

For claim 8, Schmidt and Stamp teach all of the limitations with the exception that the packet-based signaling comprises Session Initiation Protocol (SIP) signaling. However, it is well known in the art for any packet-based voice service to use the widely accepted Session Initiation Protocol. Thus, it would have been obvious to a person having ordinary skill in the art at the time of the invention to use SIP signaling to perform setup, modification, and termination of calls. Most IP phones are built to be compatible with SIP and use SIP messages to signal each other for call setup, modification, and termination. The motivation for using SIP is that it is a widely used protocol for signaling, especially in VoIP and IP telephony in general.

For claims 12, 13 and 15, Schmidt discloses a system comprising an enterprise network that provides connectivity between a plurality of enterprise telephone stations, wherein the enterprise network is coupled by a landline connection with a packet-switched network (see figure 1, broadband connection 106), further comprising routing logic, operable upon failure of the landline connection to route the packet-based signaling via the WWAN backup link between the enterprise network and the packet-switched network, so as to allow continued setup of calls inside the enterprise network between the enterprise telephone stations (see paragraph 5, lines 1-6), wherein the enterprise network comprises a router having the routing logic (see figure 1, 102-1), wherein the routing logic defines a primary static route via the landline connection (see figure 1, broadband connection 106) and the WWAN modem establishes the WWAN backup link via a cellular radiocommunication system (see paragraph 18, lines 1-8).

For claims 12 and 17, Schmidt teaches all of the limitations with the exception that the call server on the packet-swtiched network engages in packet-based signaling with the enterprise network to set up calls inside the enterprise network between the enterprise telephone stations and the call server comprises an IP Centrex server. Stamp, from the same field of endeavor, teaches the provision of using an IP-based Centrex server as a centralized call server on a packet-based network accessible by the customer premises (see paragraph 1, lines 15-17 and figure, connection between Network Gateway E and Router via broadband connection to managed IP or ATM network). Thus, it would have been obvious to a person having ordinary skill in the art at the time of the invention to employ a central exchange service capable of setting up calls between customer premise equipment and also to calls outside the network. This combination is possible by using IP telephones or analog telephones connected to a VoIP gateway in the

enterprise network so as to format the data as needed by a central office switch in the Centrex server. The motivation for combining these features is that a Centrex server is much more cost effective and easier to maintain for a business/customer with a small quantity of equipment (see paragraph 2).

For claims 12 and 13, Schmidt and Stamp teach all of the limitations with the exception of a WWAN modem providing a WWAN backup link between the enterprise network and the packet-switched network and the routing logic defines a secondary static route via the WWAN modem. However, a modem used to modulate and demodulate carrier signals to and from the wireless interface is an inherent and required component in a WWAN connection. The signal must be modulated with a carrier frequency to become strong enough to reach the receiver at the packet-based network, and vice versa.

For claim 16, Schmidt and Stamp teach all of the limitations with the exception that the WWAN modem is integrated within the router. However, it is well known in the art to combine such devices into a single device. For example, cable modem functionality is often coupled to router/gateway functionality into one device for distributing one cable Internet connection among multiple network clients. Thust, it would have been obvious to a person having ordinary skill in the art at the time of the invention to add any type of modem into the router. The motivation to combine a router and a modem into one device is that only one power supply is needed for the device and the device would be more easily configured because the two functionalities would be directly compatible with one another.

For claim 18, Schmidt and Stamp teach all of the limitations with the exception that the packet-based signaling comprises Session Initiation Protocol (SIP) signaling. However, it is well

known in the art for any packet-based voice service to use the widely accepted Session Initiation Protocol. Thus, it would have been obvious to a person having ordinary skill in the art at the time of the invention to use SIP signaling to perform setup, modification, and termination of calls. Most IP phones are built to be compatible with SIP and use SIP messages to signal each other for call setup, modification, and termination. The motivation for using SIP is that it is a widely used protocol for signaling, especially in VoIP and IP telephony in general.

7. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schmidt and Stamp in view of Dunn et al. (US 5,873,040).

For claim 9, Schmidt and Stamp teach all of the limitations with the exception of using the WWAN connection to carry emergency calls between the enterprise network and the packet switched network. Dunn, from the same field of endeavor teaches the ability to dial an emergency number from a mobile device and transmit the mobile device's location to emergency services (see abstract). Thus, it would have been obvious to a person having ordinary skill in the art at the time of the invention to include the ability to dial an emergency number through the WWAN interface. Mobile devices are located by various methods, including GPS receivers and geolocation via base station signal strengths. The motivation for combining these teachings is that when the wire line is down, an emergency call can still be made while emergency personnel can still accurately receive location of the emergency (E911).

8. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schmidt and Stamp in view of the background of Link et al. (US 2003/0181202).

For claim 14, Schmidt and Stamp teache all of the limitations with the exception that the routing logic defines the primary static route as a lower cost route than the secondary static route.

Link, from the same or similar field of endeavor, teaches that a call through a cellular network is more expensive than a call through a landline connection (see paragraph 4, lines 10-16). Thus, it would have been obvious to a person having ordinary skill in the art at the time of the invention to set up their network to set up calls first on the landline connection, and only use the wireless connection at times when the landline connection is unavailable. This can be set up in the router/gateway to never use the wireless route unless the wired route is not available. The motivation for combining such teachings is that the subscriber to the service wants to save money.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ladha et al. (US 5,517,547), Voit et al. (US 6,215,790), Katko (US 6,223,054), Raffel et al. (US 6,681,118), Kirkpatrick (US 2004/0033786), Bifano et al. (US 2004/0121726), Sharma et al. (US 2005/0021868), Segel (US 2005/0174935), Seshadri (US 7,053,768).

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Curtis A. Alia whose telephone number is (571) 270-3116. The examiner can normally be reached on Monday Through Friday 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dang Ton can be reached on (571) 272-3171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CAA

Tom

DANG T. TON
SUPERVISORY PATENT EXAMINER